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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,483	07/18/2002	Bei-Chuan Chen	ASIP0003USA	9691
27765 7590 03/22/2007 NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION P.O. BOX 506 MERRIFIELD, VA 22116			EXAMINER LOVING, JARIC E	
			ART UNIT	PAPER NUMBER
			2137	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	03/22/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/064,483	Applicant(s) CHEN ET AL.	
	Examiner Jaric Loving	Art Unit 2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 July 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 22, 2006 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Want et al., US 2003/0115415 in view of Frank, Jr. et al., US 6,546,489.

In claim 1, Want discloses a removable memory device removably connected to a computer for delivering software to the computer, the removable memory device comprising:

a connection port for connecting in a disconnectable manner the removable memory device to a computer (paragraphs [0010]-[0011]);

a microcontroller located in the removable memory device and coupling the connection port for controlling the removable memory device (paragraphs [0013]-[0014]); and

a flash memory coupling the microcontroller for storing a software (paragraphs [0013]-[0014]);

wherein the microcontroller is so programmed that the software is executable by the computer from the removable memory device (paragraphs [0013]-[0014], [0018], [0040]).

Want fails to disclose software is executable only when the computer is booted from a memory device. Frank discloses software is executable only when the computer is booted from a memory device (col. 5, line 31 – col. 6, line 14; col. 6, lines 32-57 – disk drive can load memory image source and will only execute from the drive).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Want's portable memory device with Frank's secure boot disk drive utilizing a process of executing software only when the computer is booted from the device to establish security in operating programs. It is for this reason that one of ordinary skill in the art would have been motivated to provide Want's portable memory device with a process of executing software only when the computer is booted from the device because it helps prevent inadvertent corruption of disk data and proper machine operation (Frank, col. 1, lines 43-53).

In claim 2, Want, as modified, discloses the removable memory device of claim 1 wherein the microcontroller prevents copying of the software from the flash memory of

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the removable memory device (Frank, col. 5, line 31 – col. 6, line 14; col. 7, lines 39-60 – microcontroller or microprocessor will prevent the memory image source from being copied off the disk unless booted from the drive).

In claim 3, Want, as modified, discloses the removable memory device of claim 1 wherein the connection port is an integrated drive electronics (IDE) port (Frank, col. 4, lines 30-37; col. 6, lines 32-35).

In claim 4, Want, as modified, discloses the removable memory device of claim 1 wherein the connection port is a small computer system interface (SCSI) port (Frank, col. 4, lines 30-37; col. 6, lines 32-35).

In claim 12, Want discloses discloses a method for protecting a software, the method comprising:

providing a removable memory device for connecting in a disconnectable manner to a computer and delivering the software to the computer, the removable memory device comprising a flash memory for storing the software, a connection port for connecting in a disconnectable manner to a computer, and a microcontroller located in the removable memory device for executing the software with the computer via the connection port (paragraphs [0010]-[0011], [0013]-[0014], [0018], [0040]); and

programming the microcontroller in such a way that the software is executable by the computer only from the removable memory device (paragraphs [0013]-[0014], [0018], [0040]).

Want fails to disclose software is executable only when the computer is booted from a memory device. Frank discloses software is executable only when the computer

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is booted from a memory device (col. 5, line 31 – col. 6, line 14; col. 6, lines 32-57 – disk drive can load memory image source and will only execute from the drive).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Want's portable memory device with Frank's secure boot disk drive utilizing a process of executing software only when the computer is booted from the device to establish security in operating programs. It is for this reason that one of ordinary skill in the art would have been motivated to provide Want's portable memory device with a process of executing software only when the computer is booted from the device because it helps prevent inadvertent corruption of disk data and proper machine operation (Frank, col. 1, lines 43-53).

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Want and Frank, Jr. and further in view of Strom et al., US 2004/0003274.

In claim 5, Want, as modified, fails to disclose the removable memory device where the connection port is a universal serial bus (USB) port. Strom teaches utilizing a USB port in a method of content protection (paragraph [0023]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Want's portable memory device and Frank's secure boot disk drive with Strom's method of preventing content distribution utilizing a USB port for an easy method of data transfer. It is for this reason that one of ordinary skill in the art would have been motivated to provide a USB port because it provides another interface in which other types of computer readable media may be used (Strom, paragraphs [0022]-[0023]).

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5. Claims 6-9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Want in view of Frank, Jr. and further in view of Stevens US 2002/0133702.

In claim 6, Want discloses a removable memory device connected to a computer for delivering software to the computer for providing software copy protection, the removable memory device comprising:

- a connection port for electrically connecting in a disconnectable manner the removable memory device to the computer (paragraphs [0010]-[0011]);

- a microcontroller located in the removable memory device and electrically connected to the connection port (paragraphs [0013]-[0014]);

- a flash memory electrically connected to the microcontroller (paragraphs [0013]-[0014]); and

- a private program stored in the disk drive (paragraphs [0037]-[0040]).

Want fails to disclose an authentication program is installed for booting the computer from the memory device; the memory device comprising a boot sector for booting the computer in accordance with the authentication program; the private program being executable by the computer only after booting from the boot sector is performed; the authentication program instructing the microcontroller to return a virtual boot sector. Frank discloses an authentication program is installed for booting the computer from the memory device (col. 5, lines 7-45; col. 6, lines 32-51; col. 7, lines 39 – col. 8, line 4 – verification code can be installed and sent on a remote computer system before access to the protected area is granted); the memory device comprising a boot sector for booting the computer in accordance with the authentication program

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(col. 5, line 31 – col. 6, line 14; col. 6, lines 32-57; col. 7, lines 39-60); the private program being executable by the computer only after booting from the boot sector is performed (col. 6, lines 4-14 – memory image will only boot after booting).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Want's portable memory device with Frank's secure boot disk drive to establish security in operating programs. It is for this reason that one of ordinary skill in the art would have been motivated to provide Want's portable memory device with a process of executing software only when the computer is booted from the device because it helps prevent inadvertent corruption of disk data and proper machine operation (Frank, col. 1, lines 43-53)

However, the combination of Want and Frank fails to disclose the authentication program instructing the microcontroller to return a virtual boot sector. Stevens discloses the authentication program instructing the microcontroller to return a virtual boot sector (paragraphs [0050] – [0051] and [0058] – [0061]). Stevens discusses a fail-safe boot in paragraph [0051] that boots from a different drive, which is similar to applicant's virtual boot sector and would only arise from commands in the BIOS.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Want's portable memory device and Frank's secure boot disk drive with Stevens' method of protecting data utilizing an authentication program and a virtual boot sector to establish security in operating programs. It is for this reason that one of ordinary skill in the art would have been motivated to provide Want's portable memory device with an authentication program and a virtual boot sector because it provides

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flexibility in the devices the CPU can use to execute an initial set of instructions or to preserve data in the event of a power-off condition (Stevens, paragraphs [0042]-[0043]) and it would not only protect the software on the device during normal system operations, but during the boot process (Stevens, paragraphs [0003]-[0007]).

In claim 7, Want, as modified, discloses the removable memory device of claim 6 wherein the microcontroller prevents copying of the private program from the flash memory of the removable memory device (Frank, col. 5, line 31 – col. 6, line 14; col. 7, lines 39-60).

In claim 8, Want, as modified, discloses the removable memory device of claim 6 wherein the connection port is an integrated drive electronics (IDE) port (Frank, col. 4, lines 30-37; col. 6, lines 32-35).

In claim 9, Want, as modified, discloses the removable memory device of claim 6 wherein the connection port is a small computer system interface (SCSI) port (Frank, col. 4, lines 30-37; col. 6, lines 32-35).

In claim 11, Want, as modified, discloses the removable memory device of claim 6 wherein the authentication program is stored in a read only memory of the microcontroller (Frank, col. 5, line 46 – col. 6, line 14).

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Want, Frank, Jr., and Stevens and further in view of Strom.

In claim 10, Want, as modified, fails to disclose the removable memory device where the connection port is a universal serial bus (USB) port. Strom teaches utilizing a USB port in a method of content protection (paragraph [0023]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Want's portable memory device, Frank's secure boot disk drive, and Stevens' method of protecting data with Strom's method of preventing content distribution utilizing a USB port for an easy method of data transfer. It is for this reason that one of ordinary skill in the art would have been motivated to provide a USB port because it provides another interface in which other types of computer readable media may be used (Strom, paragraphs [0022]-[0023]).

Response to Arguments

7. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Curran et al., US 4,525,599; Bakhoun, US 5,267,311; Ostrover et al., US 5,450,489; Schossow et al., US 5,467,396; Junya, US 5,860,094; Davis et al., US 6,401,208; Mattison, US 6,615,355; Lee, US 2002/0174353; Cromer et al., US 2003/0204754 and Moller et al., US 2003/0014653; Matsubara et al., US 5,687,345; Sinclair et al., US 6,813,678; Fernald, US 6,615,324; Solhjell, US 5,542,082; Tsai, US 6,009,496; Johnson, US 2005/0044364; Worby, US 2002/0188856; Lieberman et al., US 2003/0233558; Sezaki et al., US 2001/0054128..

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jaric Loving whose telephone number is (571) 272-1686. The examiner can normally be reached on Monday-Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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